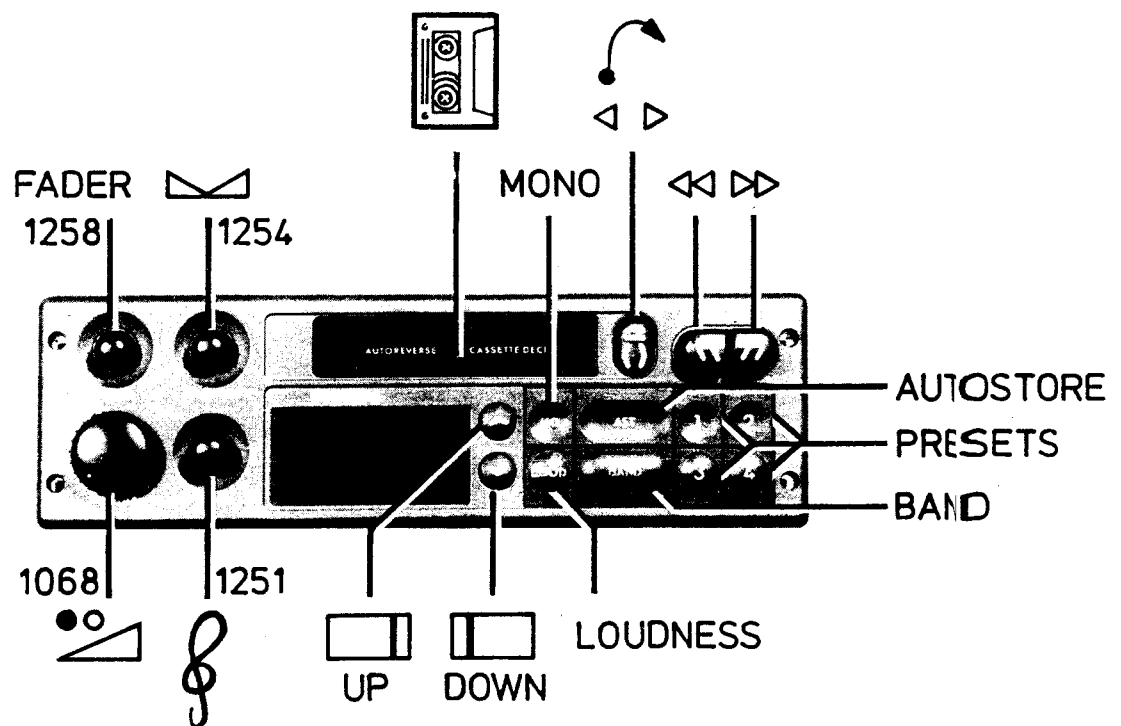


Service Service Service

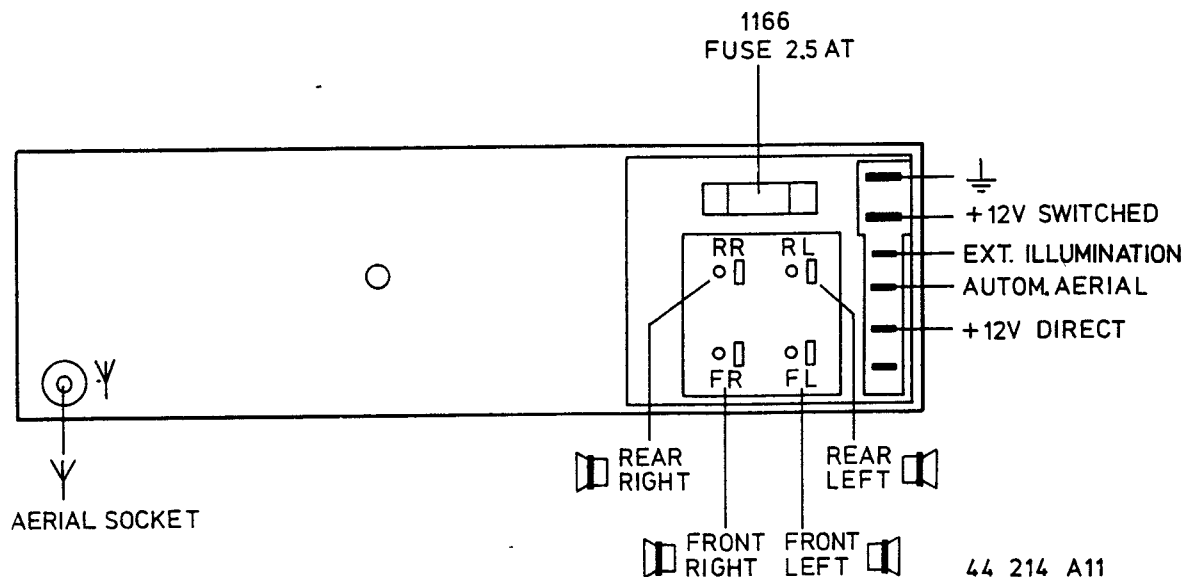
For repair information of the cassette mechanism see
Service Manual of auto reverse cassette P6-16
(DC670), P1-8 (DC570).

Service Manual

12 V 



44 254 A11



TECHNICAL DATA

General

Power supply	: 14.4V DC
Dimensions(wxhxd)	: 180x51x150 mm

Radio

LW	: 144-288 kHz
MW	: 522-1611 kHz
FM	: 87.5-108 MHz
IF-AM	: 10.7 MHz
IF-FM	: 10.7 MHz
Sensitivity 26 dB S/R	: 160 μ V (LW)
	: 110 μ V (MW)
	: 4 μ V (FM)
Limitation α -3dB	: 15 μ V
10 dB crosstalk	: 150 μ V

Cassette player

Number of tracks	: 2x2
Tape speed	: 4.76 cm/sec
Wow & Flutter	: $\geq$ 0.35 %
Crosstalk	: $\leq$ 30 dB

Amplifier

Output power ($D \leq 10\%$)	: 4x5.2W $\pm$ 1 dB/4 Ω
Loudness	: 7 dB at 100 Hz
	: 6 dB at 10 kHz
Tone control	: -9 dB at 100 Hz
	: -14dB at 10 kHz

SERVICING HINTS

SERVICE TEST PROGRAMME

The µC test programme can be called without first entering the security code.

µC test

This test is called by turning the set on **while** keeping the **P1** and **P2** keys depressed.

Besides the RAM, a great number of µC instructions are tested. If no faults occur, a special pattern will be displayed. (See fig. 1f)

The test can be stopped by turning the set off.

Display test

The display test is called by turning the set on **while** keeping the **P1** and **P3** keys depressed.

A number of easily recognizable patterns are then displayed in succession. (See figs. 1a to 1h)

If you want to make one of the patterns visible for a longer time, you only have to keep the **P1** key pressed for the required time.

SECURITY CODE

General

To reduce the risk of theft, this car radio has a built-in electronic lock. The security code has been entered in the factory and cannot be changed by the customer. The security code consists of four figures varying between "0000" and "9999". The figures are selected by pressing the UP and DOWN keys and are entered by pressing the **P1** key. If you enter a wrong code, you will hear an error bleep and after 1 minute you will be given a new opportunity to enter the right code. Each time a wrong code is entered, the waiting time is doubled, so 1, 2, 4, 8 etc. with a maximum of 32 minutes.

Note: If the set is presented for repair with the security code switched on, and the customer has not stated the right code, the set will not be able to function.

Replacing the eeprom by a "non-coded" eeprom and/or replacing the microprocessor will not help in that case.

Working

ACTIVATING THE SECURITY CODE

Proceed as follows:

Switch the set on **while** pressing the **UP** key.

Now you hear a two-tone beep and the protection is activated.

The car radio will signal that the code has been activated by briefly showing in the display the character '-C-' at the moment of switching on the radio.

ENTRY OF THE CODE

Example: Suppose the code is 4567.

Action	Display shows	Note
- Switch on	-C-	
- Press P1	-	
- Select UP/DOWN "4"	4	first figure
- Press P1	4-	
- Select UP/DOWN "5"	45	second figure
- Press P1	45-	
- Select UP/DOWN "6"	456	third figure
- Press P1	456-	
- Select UP/DOWN "7"	4567	fourth figure
- Press P1		confirmation tone

The radio is now on and you can operate the cassette player.

Now that the security code is active, the code should be entered again each time the supply voltage has been interrupted.

To indicate that the security code is activated, the display briefly shows the character "C" each time the set is turned on.

SWITCHING THE CODE OFF

Switch the set on **while** pressing the **UP** key. The display shows the indication "-C-". Enter the right code in the way described above. Two two-tone squeaks confirm that the security code is switched off.



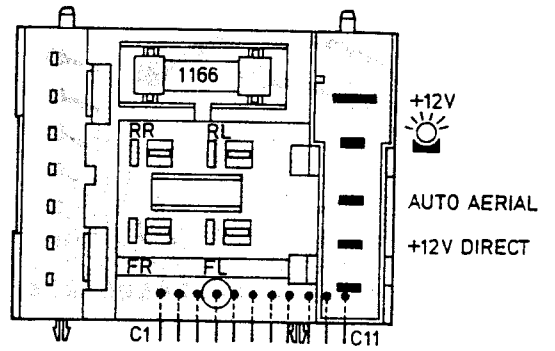
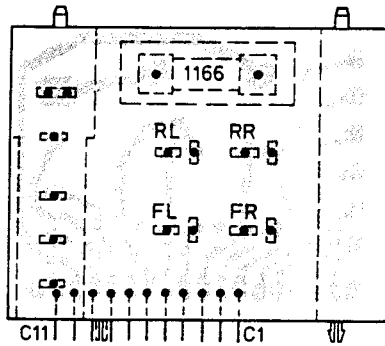
All ICs and many other semi-conductors are susceptible to electrostatic discharges (ESD).

Careless handling during repair can reduce service life drastically. When repairing, make sure that you are connected to the same potential as the mass of the set via a wrist wrap with resistance.

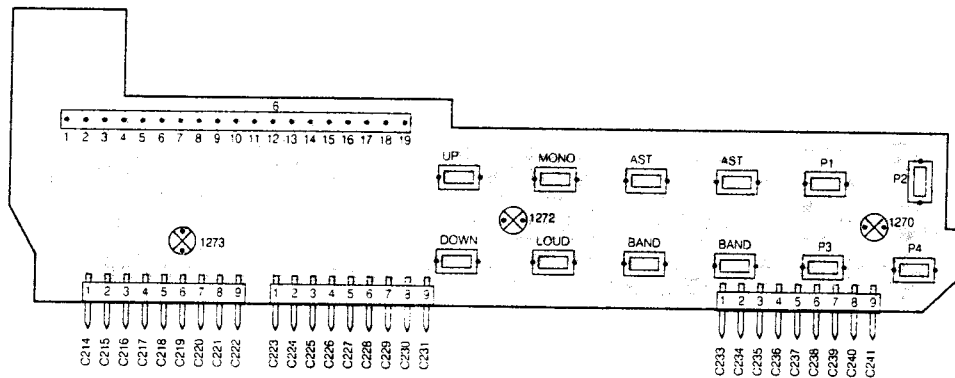
Keep components and tools also at this potential.

1053 CONNECTING BLOCK P.B. ASSY

C11 = N.C.
 C10 = +12V SWITCHED
 C9 = +12V DIRECT
 C8 = EXT. ILL.
 C7 = AUTO. AERIAL
 C4 = +FL
 C5 = -L
 C6 = +RL
 C3 = -R
 C2 = +FR
 C1 = +RR



44 215 B11



PCB 01231
 T27-838

...V any position
 ...V FM position FM
 ...V AM position AM
 ...V > position play forward
 ...V < position play reverse
 ...V eject position eject

1050 FM TUNER

C101= GND. C107= VC-FM MP-7
 C102= - C108= 1.4V
 C103= GND. C109= GND.
 C104= 0.0V C110= 1.7V
 C105= 1.7V C111= 2.9V
 C106= 8.5V C112= 0.2V
 C113= 1.8V

1055 IAC-THIFI

1 = N.C. 5 = 4.3V
 2 = 2.5V MP-9 6 = 8.1V
 3 = N.C. 7 = 8.4V
 4 = 4.3V signal 8 = GND.
 0.0V no signal

1057 ST.DEC.THIFI

1 = 5.0V mono 11= 5.0V mono
 0.2V stereo 0.0V stereo
 2 = N.C. 12= N.C.
 3 = 3.5V 13= 5.0V muted
 0.0V signal
 4 = 2.5V 14= 0.0V muted
 5.0V signal
 5 = 3.5V 15= 3.5V
 6 = GND. 16= 3.5V
 7 = N.C. 17= 3.5V
 8 = 7.3V 18= 3.5V
 9 = N.C. 19= 3.5V
 10= 4.3V signal 20= 3.5V
 0.0V no signal

6050 TEA6100

1 = 8.4V 11= 4.2V MP-4
 2 = 0.8V 12= 4.6V
 3 = 4.3V signal 13= 4.6V
 0.0V no signal
 4 = N.C. 14= 2.5V
 5 = MP-3 15= 4.4V
 6 = 40 kHz 16= 2.9V
 7 = GND. 17= 2.9V
 8 = 8.4V 18= 2.9V
 9 = 4.8V(SDA) 19= 2.9V
 10= 4.8V(SCL) 20= GND.

6051 TSA6057

1 = 4 MHz 9 = 40 kHz $\pm$ 0.6Hz
 2 = 4 MHz 10= 4.8V(SDA)
 3 = 4.7V 11= 4.8V(SCL)
 4 = GND. 12= GND.
 5 = 1.8V 13= VC-FM 1.3V-5.8V
 (87.5MHz-108MHz)
 6 = 1.8V 14= 2.0V
 7 = 1.8V 15= N.C.
 8 = $\leq$ 0.8V FM 16= 8.3V
 8.3V AM

6052 TEA6200

1 = 6.8V AM 11= 6.8V AM
 2 = 4.0V AM 12= 1.3V MP-5
 3 = 8.5V 13= 4.8V AM
 4 = 8.5V 14= 8.5V AM
 5 = 8.5V 15= 4.8V AM
 6 = 8.5V 16= 4.8V AM
 7 = 0.7V 17= GND.
 8 = 4.0V AM 18= 1.0V AM
 9 = 4.0V AM 19= 1.3V AM
 10= 4.0V AM 20= 3.3V AM

6053 M8571B6

1 = GND. 5 = 4.8V(SDA)
 2 = GND. 6 = 4.8V(SCL)
 3 = GND. 7 = GND.
 4 = GND. 8 = 5.0V

6055 TA7705P

1 = 8.5V 9 = 2.9V
 2 = 3.3V; 0.0V eject 10= N.C.
 3 = 0.0V >, eject 11= 2.9V
 5.0V <
 4 = N.C. 12= 2.9V
 5 = 2.9V 13= 2.9V
 6 = 2.9V 14= N.C.
 7 = 2.9V 15= N.C.
 8 = GND. 16= 3.3V

6060/6061 TDA1518Q

1 = 2.2V 8 = 14.4V
 2 = 2.2V 9 = 6.6V
 3 = GND. 10= 14.4V
 4 = 2.2V 11= 14.4V
 5 = 6.6V 12= 6.6V
 6 = 14.4V 13= 2.2V
 7 = GND.

6063 L4918

1 = 14.4V
 2 = 2.6V
 3 = GND.
 4 = GND.
 5 = 8.5V

6064 L4904

1 = 12.7V 5 = N.C.
 2 = 8.5V 6 = 4.2V
 3 = 5.6V 7 = 5.0V
 4 = GND. 8 = 5.0V

6068/6069

e = 0.1V loudn. on
 b = 0.7V loudn. on
 c = 0.1V loudn. on

6070/6071

e = GND.
 b = 0.6V loudn. off
 0.0V loudn. on
 c = 0.0V loudn. off
 0.1V loudn. on

6074

e = GND.
 b = 0.0V
 c = 5.0V

6075

e = GND.
 b = 0.7V
 c = 0.0V

6073

e = GND.
 b = 0.6V loudn. off
 0.0V loudn. on
 c = 0.0V loudn. off
 3.3V loudn. on

For adjusting and checking see general procedures

Adjustment	SK					
Quadrature detector	FM	93 MHz, 10 μ V			5050	via 100 k Ω : 11-15 IC6050 $\leq$ 100 mV DC
α -3dB	FM	93 MHz, 1 mV $\Delta f = 22.5$ kHz f mod = 1 kHz				 0dB (775 mV)
		93 MHz, 15 μ V $\Delta f = 22.5$ kHz f mod = 1 kHz			3055	 -3dB
AM-search level	MW	990 kHz, 70 μ V			3053	 1.75 V DC

PRE  LOUD

 AST STEREO INFO SK DK

a.


 AST STEREO INFO SK DK

b.

PRE  LOUD

 AST STEREO INFO SK DK

c.


 AST STEREO INFO SK DK

d.

PRE  LOUD

 AST STEREO INFO SK DK

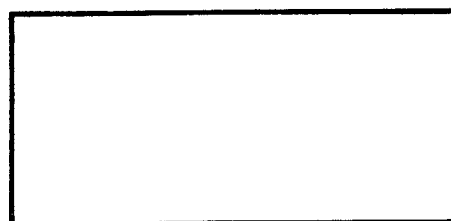
e.


 AST STEREO INFO SK DK

f.

PRE  LOUD

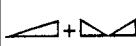
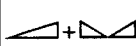
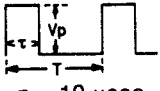
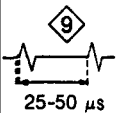

g.

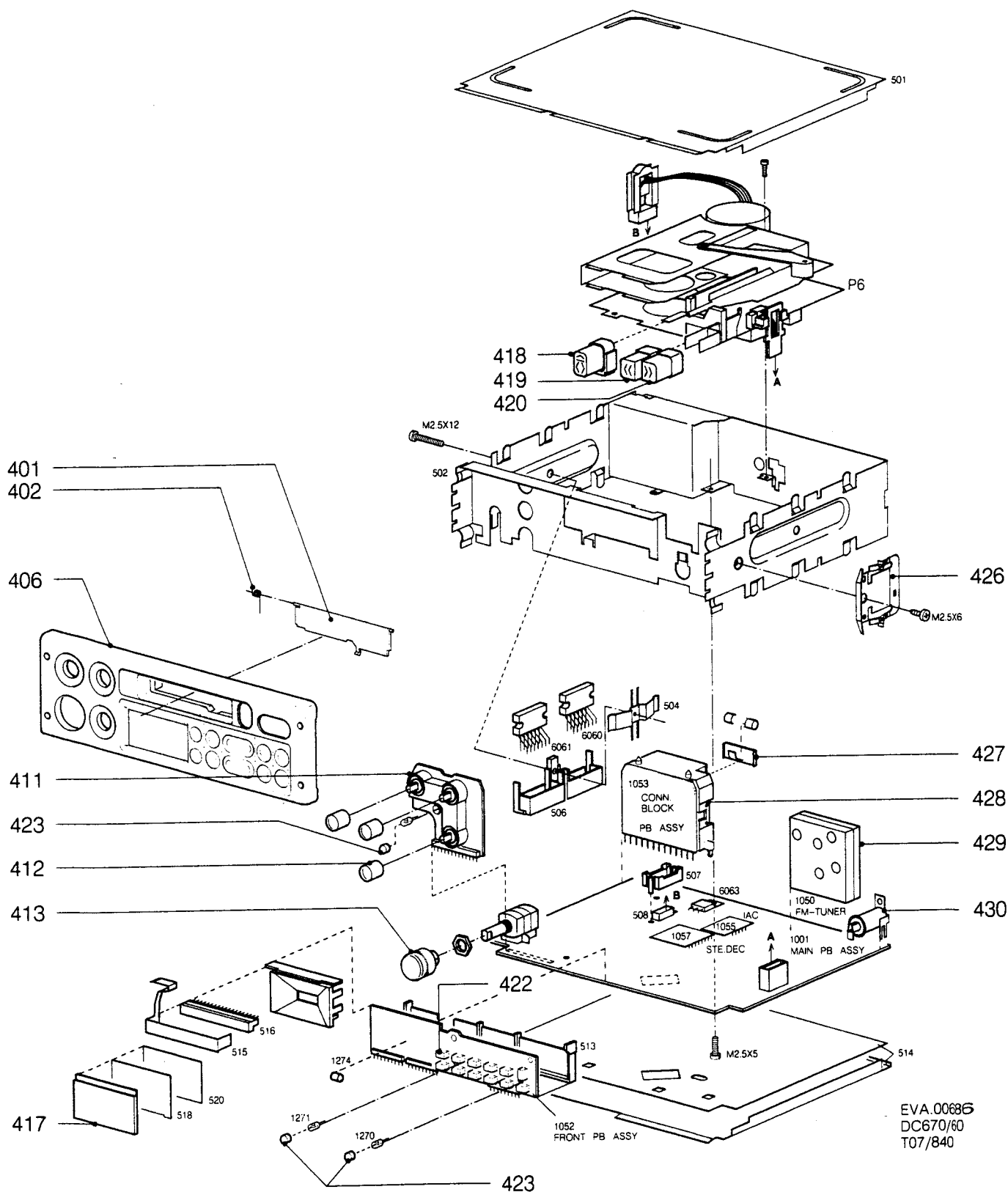


h.

Fig. 1

For checking and adjusting see general procedures

Check	SK				Setting of controls		
FM-Mute	FM	93 MHz, 1 mV				 0dB (775 mV)	
		no signal				-30dB ≤  ≤ -40dB	
26dB-SNR	FM	93 MHz, 4 μV Δf = 22.5 kHz f mod = 1 kHz				 0dB (775 mV)	
		93MHz, 4μV without mod.				 ≥ 26dB	
	MW	990 kHz, 110 μV 1 kHz, 30% AM				 0dB (775 mV)	
		990kHz, 110 μV without mod.				 ≥ 26dB	
Demodulated FM-levels	FM	93MHz. 1mV Δf = 22.5 kHz f mod = 1 kHz				 200 mV ± 1dB	
		93 MHz, 1 mV Δf = 6.75 kHz f mod. = 1 kHz				 50 mV ± 1dB	
Demodulated FM level	FM	93 MHz, 1 mV Δf = 3.75 kHz f mod. = 57 kHz				 20 mV ± 1 dB	
Demodulated AM-level	MW	990 kHz, 1 mV 1kHz, 30% AM				 350 mV ± 1dB	
Cross talk	FM	93 MHz, 1 mV stereo signal				L  0dB (775 mV) R 	
		93 MHz, 1 mV stereo-R				R  - L  ≥ 21dB	
SDS/10dB Cross talk	FM	93 MHz, 1 mV stereo signal				L  0dB (775 mV) R 	
		93 MHz, 150 μV stereo-R				R  - L  = 10dB	
Search level FM	FM	93 MHz, 25μV				 2 V-DC	
Search level AM	MW	990 kHz, 70μV				 1.75 V-DC	
VC-FM	FM			87.5 MHz		 ≥ 1.0 V-DC	
				108 MHz		 ≤ 6.0 V-DC	
VC-AM	LW			144 kHz		 ≥ 0.8 V-DC	
	MW			1611 kHz		 ≤ 6.0 V-DC	
I.A.C.	FM	 τ = 10 μsec T = 300 μsec Vp = 60 mV					

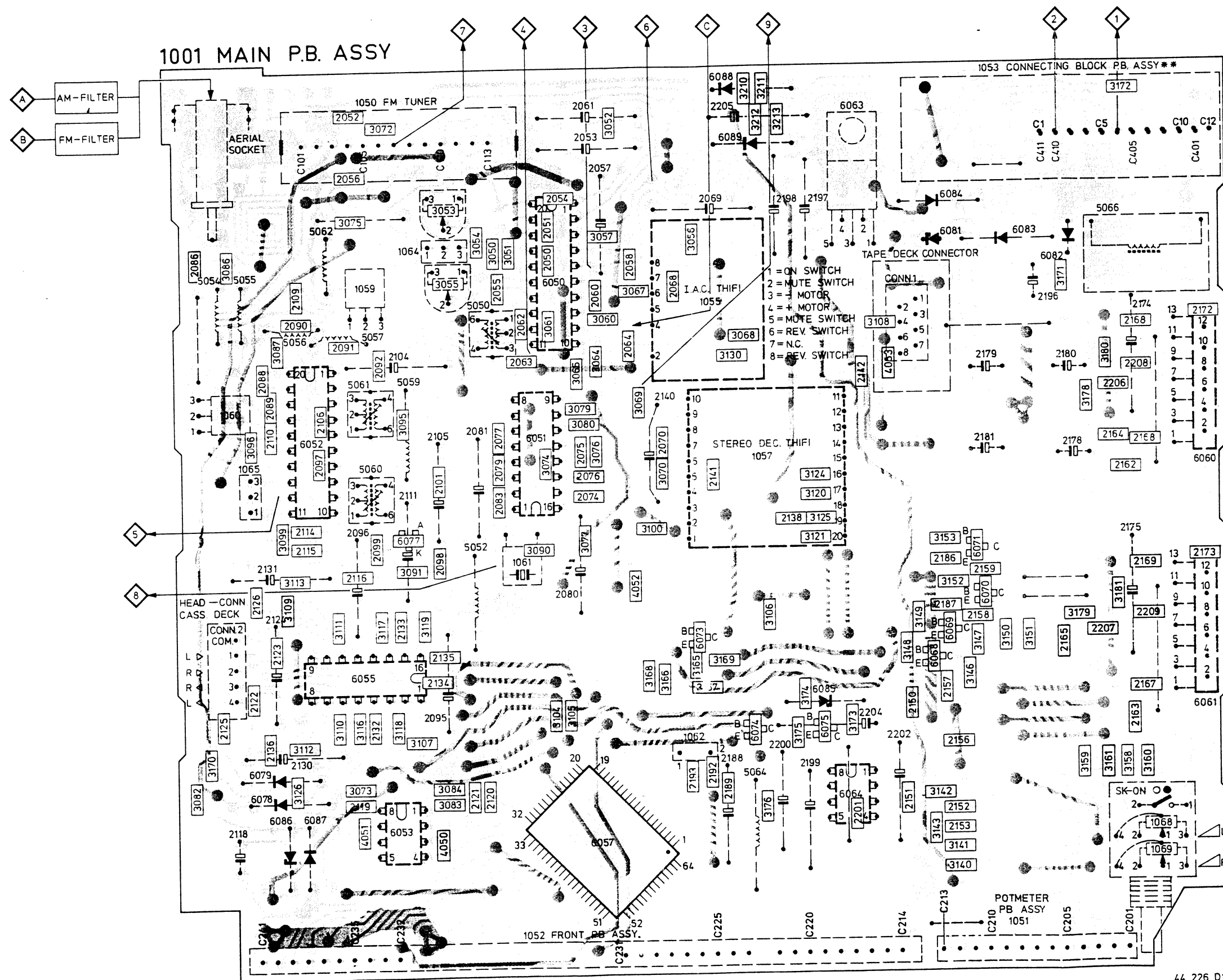


401 4822 443 62676 (570)
 401 4822 443 62271
 402 4822 492 42201
 406* 4822 423 50944 (570/60E)
 406* 4822 423 50932 (670/60)
 406* 4822 423 50939 (670/60E)
 411 4822 214 51739
 412 4822 413 41479
 413 4822 413 41481
 417 4822 130 90499

418 4822 410 20902 (570)
 418 4822 410 26735 (670)
 419 4822 318 40380 (570)
 419 4822 410 26738 (670)
 420 4822 318 40380 (570)
 420 4822 410 26736 (670)
 422 4822 276 12469
 423 4822 134 40921
 426 4822 492 63822
 427 4822 256 30338
 428 4822 267 50859

429 4822 210 10305
 430 4822 267 30883

* Incl. items 401, 402



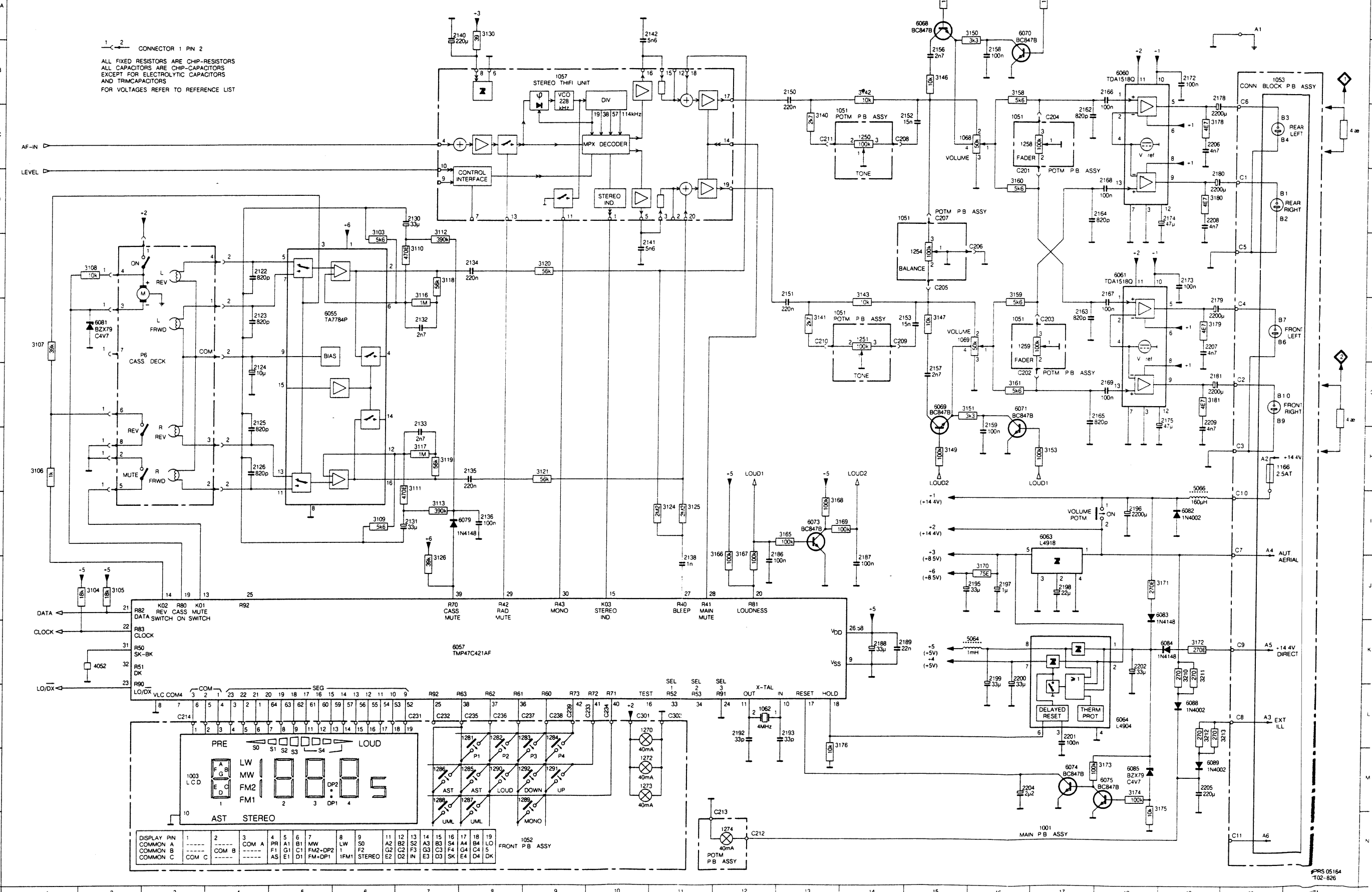
- 2 CHIP CAPACITOR
- 3 CHIP RESISTOR
- 4 CHIP JUMPER
- 5 CHIP TRANSISTOR
- * ONLY FOR SETS WITH SDK.

** C1 = +RRE C7 = AUT. AERIAL
 C2 = +RFR C8 = EXT. ILLUMINATION
 C3 = -RFR/LFR C9 = +14.4V DIRECT
 C4 = +LFR C10 = +14.4V
 C5 = -RRE/LRE C11 = N.C.
 C6 = +LRE

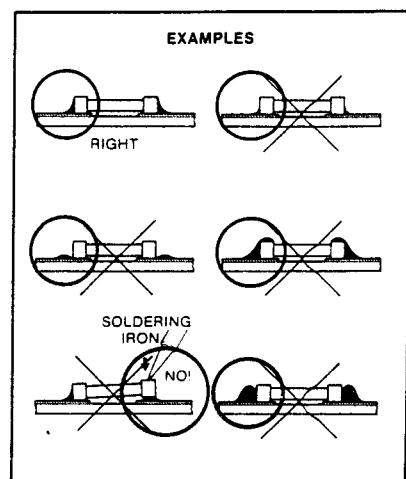
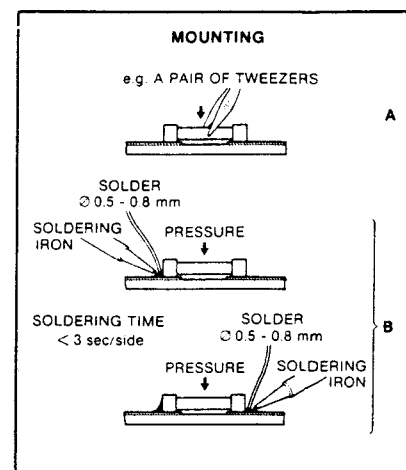
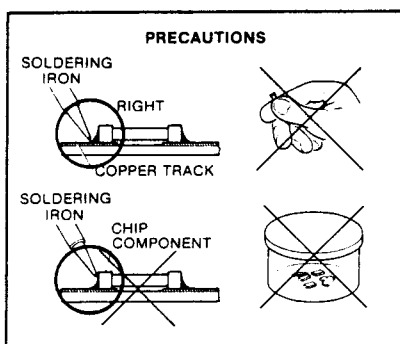
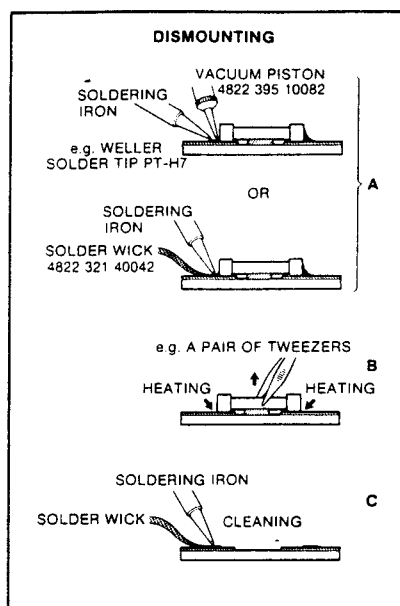
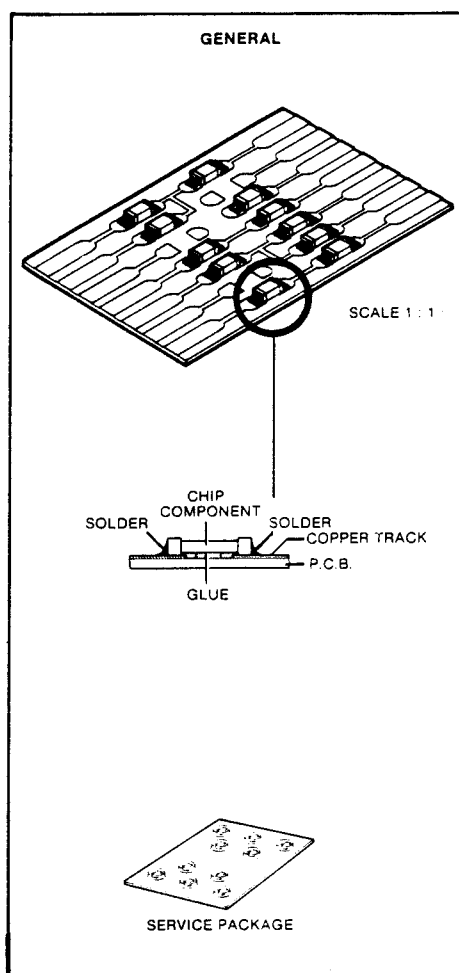
44 226 D11

1003 M 3 1250 C14 1272 M10 2125 G 4 2134 E 8 2142 A10 2157 G15 2165 G18 2173 E19 2181 G19 2193 L13 2200 K16 2207 F19 3106 H 1 3112 D 7 3120 E 9 3140 C13 3148 A15 3158 B16 3167 I12 3173 M18 3180 D19 4052 K 2 6061 E18 6071 G16 6082 I19
 1057 B 9 1251 F14 1273 M10 2126 H 4 2135 E 8 2150 B13 2158 B16 2166 B18 2174 D19 2186 J13 2195 J16 2201 L17 2208 D19 3107 F 1 3113 I 7 3121 H 9 3141 F13 3149 A15 3159 E16 3168 I13 3174 M18 3181 G19 5064 K16 6063 I17 6073 I13 6083 J19
 1062 L12 1254 E15 1274 N12 2130 D 7 2138 I 8 2151 E13 2159 G16 2167 E18 2175 G19 2187 J14 2196 I18 2202 K18 2209 G19 3108 E 2 3116 E 7 3124 I11 3142 B14 3150 A15 3160 D16 3169 J13 3175 M19 3182 G19 5066 H19 6064 L18 6074 M17 6084 K19
 1068 C15 1258 C16 2122 E 4 2131 I 7 2138 J11 2152 C14 2162 C17 2168 D18 2178 B19 2188 K14 2197 J16 2204 M17 3103 D 6 3117 H 7 3125 I11 3143 E14 3151 G15 3161 I13 3171 J19 3178 C19 3212 L19 6057 K 8 6069 G15 6079 I 8 6088 L19
 1069 F15 1259 F16 2123 F 4 2132 F 7 2140 A10 2153 F14 2163 F17 2169 G18 2179 F19 2189 K15 2198 J17 2205 M19 3104 J 2 3110 E 7 3118 E 7 3126 J 7 3146 B15 3152 A17 3165 I13 3171 J19 3178 C19 3212 L19 6057 K 8 6069 G15 6079 I 8 6088 L19
 1166 H20 1270 L10 2124 G 4 2133 G 7 2141 E10 2156 B14 2164 D18 2172 B19 2180 D19 2192 L12 2199 K16 2206 C19 3105 J 2 3111 H 7 3119 H 7 3130 A 8 3147 F15 3153 H17 3166 I12 3172 K19 3179 F19 3213 L20 6060 B18 6070 A16 6081 F 2 6089 M19

DC570: 2122, 2125 replaced by jumpers 3101, 3102.
 Jumper 4053 added.



Chips 50 V NP0 S1206			Chips 0,125 W S1206			Chips 0,125 W S1206			1U
1 pF	5%	4822 122 32479	4,7 E	5%	5322 111 90376	6,8 k	2%	4822 111 90544	
1,2 pF	5%	4822 122 33013	5,1 E	5%	4822 111 90393	7,5 k	2%	4822 111 90276	
1,5 pF	5%	4822 122 31792	5,6 E	5%	4822 111 90394	8,2 k	2%	5322 111 90118	
1,8 pF	5%	4822 122 32087	6,2 E	5%	4822 111 90395	9,1 k	2%	4822 111 90373	
2,2 pF	5%	4822 122 32425	6,8 E	5%	4822 111 90254	10 k	2%	4822 111 90249	
3,3 pF	5%	4822 122 32079	7,5 E	5%	4822 111 90396	11 k	2%	4822 111 90337	
3,9 pF	5%	4822 122 32081	8,2 E	5%	4822 111 90397	12 k	2%	4822 111 90253	
4,7 pF	5%	4822 122 32082	9,1 E	5%	4822 111 90398	13 k	2%	4822 111 90509	
5,6 pF	5%	4822 122 32506	10 E	2%	5322 111 90095	15 k	2%	4822 111 90196	
6,8 pF	5%	4822 122 32507	11 E	2%	4822 111 90338	16 k	2%	4822 111 90346	
8,2 pF	5%	4822 122 32083	12 E	2%	4822 111 90341	18 k	2%	4822 111 90238	
10 pF	5%	4822 122 31971	13 E	2%	4822 111 90343	20 k	2%	4822 111 90349	
12 pF	5%	4822 122 32139	15 E	2%	4822 111 90344	22 k	2%	4822 111 90251	
15 pF	5%	4822 122 32504	16 E	2%	4822 111 90347	24 k	2%	4822 111 90512	
18 pF	5%	4822 122 31769	18 E	2%	5322 111 90139	27 k	2%	4822 111 90542	
22 pF	10%	4822 122 31837	20 E	2%	4822 111 90352	30 k	2%	4822 111 90216	
27 pF	5%	4822 122 31966	22 E	2%	4822 111 90186	33 k	2%	5322 111 90267	
33 pF	5%	4822 122 31756	24 E	2%	4822 111 90355	36 k	2%	4822 111 90514	
39 pF	5%	4822 122 31972	27 E	2%	5322 111 90105	39 k	2%	5322 111 90108	
47 pF	5%	4822 122 31772	30 E	2%	4822 111 90356	43 k	2%	4822 111 90363	
56 pF	5%	4822 122 31774	33 E	2%	4822 111 90357	47 k	2%	4822 111 90543	
68 pF	5%	4822 122 31961	36 E	2%	4822 111 90359	51 k	2%	5322 111 90274	
82 pF	10%	4822 122 31839	39 E	2%	4822 111 90361	56 k	2%	4822 111 90573	
100 pF	5%	4822 122 31765	43 E	2%	5322 116 90125	62 k	2%	5322 111 90275	
120 pF	5%	4822 122 31766	47 E	2%	4822 111 90217	68 k	2%	4822 111 90202	
150 pF	5%	4822 122 31767	51 E	2%	4822 111 90365	75 k	2%	4822 111 90574	
180 pF	2%	4822 122 31794	56 E	2%	4822 111 90239	82 k	2%	4822 111 90575	
220 pF	5%	4822 122 31965	62 E	2%	4822 111 90367	91 k	2%	5322 111 90277	
270 pF	5%	4822 122 32142	68 E	2%	4822 111 90203	100 k	2%	4822 111 90214	
330 pF	10%	4822 122 31642	75 E	2%	4822 111 90371	110 k	2%	5322 111 90269	
390 pF	5%	4822 122 31771	82 E	2%	4822 111 90124	120 k	2%	4822 111 90568	
470 pF	5%	4822 122 31727	91 E	2%	4822 111 90375	130 k	2%	4822 111 90511	
560 pF	5%	4822 122 31773	100 E	2%	5322 111 90091	150 k	2%	5322 111 90099	
680 pF	5%	4822 122 31775	110 E	2%	4822 111 90335	160 k	2%	5322 111 90264	
820 pF	5%	4822 122 31974	120 E	2%	4822 111 90339	180 k	2%	4822 111 90565	
1 nF	10%	5322 122 31647	130 E	2%	4822 111 90164	200 k	2%	4822 111 90351	
1,2 nF	5%	4822 122 31807	150 E	2%	5322 111 90098	220 k	2%	4822 111 90197	
1,5 nF	10%	4822 122 31781	160 E	2%	4822 111 90345	240 k	2%	4822 111 90215	
1,8 nF	10%	4822 122 32153	180 E	2%	5322 111 90242	270 k	2%	4822 111 90302	
2,2 nF	10%	4822 122 31644	200 E	2%	4822 111 90348	300 k	2%	5322 111 90265	
2,7 nF	10%	4822 122 31783	220 E	2%	4822 111 90178	330 k	2%	4822 111 90513	
3,3 nF	10%	4822 122 31969	240 E	2%	4822 111 90353	360 k	2%	4822 111 90515	
3,9 nF	10%	4822 122 32566	270 E	2%	4822 111 90154	390 k	2%	4822 111 90182	
4,7 nF	10%	4822 122 31784	300 E	2%	4822 111 90156	430 k	2%	4822 111 90168	
5,6 nF	10%	4822 122 31916	330 E	2%	5322 111 90106	470 k	2%	4822 111 90161	
6,8 nF	10%	4822 122 31976	360 E	1%	4822 111 90288	510 k	2%	4822 111 90364	
10 nF	10%	4822 122 31728	360 E	2%	4822 111 90358	560 k	2%	4822 111 90169	
12 nF	10%	5322 122 31648	390 E	2%	5322 111 90138	620 k	2%	4822 111 90213	
15 nF	10%	4822 122 31782	430 E	2%	4822 111 90362	680 k	2%	4822 111 90368	
18 nF	10%	4822 122 31759	470 E	2%	5322 111 90109	750 k	2%	4822 111 90369	
22 nF	10%	4822 122 31797	510 E	2%	4822 111 90245	820 k	2%	4822 111 90205	
27 nF	10%	4822 122 32541	560 E	2%	5322 111 90113	910 k	2%	4822 111 90374	
33 nF	10%	4822 122 31981	620 E	2%	4822 111 90366	1 M	2%	4822 111 90252	
47 nF	10%	4822 122 32542	680 E	2%	4822 111 90162	1,1 M	5%	4822 111 90408	
56 nF	10%	4822 122 32183	750 E	2%	5322 111 90306	1,2 M	5%	4822 111 90409	
100 nF	10%	4822 122 31947	820 E	2%	4822 111 90171	1,3 M	5%	4822 111 90411	
180 nF	10%	4822 122 32915	910 E	2%	4822 111 90372	1,5 M	5%	4822 111 90412	
220 nF	20%	4822 122 32715	1 k	2%	5322 111 90092	1,6 M	5%	4822 111 90413	
Chips 0,125 W S1206 NP0			1,1 k	2%	4822 111 90336	1,8 M	5%	4822 111 90414	
0 E	jumper	4822 111 90163	1,2 k	2%	5322 111 90096	2 M	5%	4822 111 90415	
1 E	5%	4822 111 90184	1,3 k	2%	4822 111 90244	2,2 M	5%	4822 111 90185	
1,1 E	5%	4822 111 90377	1,5 k	2%	4822 111 90151	2,4 M	5%	4822 111 90416	
1,2 E	5%	4822 111 90378	1,6 k	2%	5322 111 90265	2,7 M	5%	4822 111 90417	
1,3 E	5%	4822 111 90379	1,8 k	2%	5322 111 90101	3 M	5%	4822 111 90418	
1,5 E	5%	4822 111 90381	2 k	2%	4822 111 90165	3,3 M	5%	4822 111 90191	
1,6 E	5%	4822 111 90382	2,2 k	2%	4822 111 90248	3,6 M	5%	4822 111 90419	
1,8 E	5%	4822 111 90383	2,4 k	2%	4822 111 90289	3,9 M	5%	4822 111 90421	
2 E	5%	4822 111 90384	2,7 k	2%	4822 111 90569	4,3 M	5%	4822 111 90422	
2,2 E	5%	5322 111 90104	3 k	2%	4822 111 90198	4,7 M	5%	4822 111 90423	
2,4 E	5%	4822 111 90385	3,3 k	2%	4822 111 90157	5,1 M	5%	4822 111 90424	
2,7 E	5%	4822 111 90386	3,6 k	2%	5322 111 90107	5,6 M	5%	4822 111 90425	
3 E	5%	4822 111 90387	3,9 k	2%	4822 111 90571	6,2 M	5%	4822 111 90426	
3,3 E	5%	4822 111 90388	4,3 k	2%	4822 111 90167	6,8 M	5%	4822 111 90235	
3,6 E	5%	4822 111 90389	4,7 k	2%	5322 111 90111	7,5 M	5%	4822 111 90427	
3,9 E	5%	4822 111 90391	5,1 k	2%	5322 111 90268	8,2 M	5%	4822 111 90237	
4,3 E	5%	4822 111 90392	5,6 k	2%	4822 111 90572	9,1 M	5%	4822 111 90428	
			6,2 k	2%	4822 111 90545	10M	5%	5322 111 91141	



27 012C12

Carbon film 0.2 W 70°C 5%	Ceramic plate Tuning ≤ 120 pF NP.0 2% Others -20/+80%	*a = 2,5 V b = 4 V c = 6,3 V d = 10 V e = 16 V f = 25 V g = 40 V h = 63 V j = 100 V l = 125 V m = 150 V n = 160 V q = 200 V r = 250 V s = 300 V t = 350 V u = 400 V v = 500 V w = 630 V x = 1000 V A = 1,6 V B = 6 V C = 12 V D = 15 V E = 20 V F = 35 V G = 50 V H = 75 V I = 80 V
Carbon film 0.33 W 70°C 5%	Polyester flat foil 10%	
Metal film 0.33 W 70°C 5%	Metalized polyester flat film 10%	
Carbon film 0.5 W 70°C 5%	Polyester flat foil small size (Mylar) 10%	
Carbon film 0.67 W 70°C 5%	Polysterene film/foil 1%	
Carbon film 1.15 W 70°C 5%	Tubular ceramic	
Miniature single	Subminiature tantalum ± 20%	
Chip component		

27 037A/C

- MISCELLANEOUS -				-II-			
1055	IAC-Thifi		4822 214 51676	2166	100nF 20%	50V	4822 122 33104
1057	STEREO DEC. Thifi		4822 214 51677	2168	100nF 20%	50V	4822 122 33104
1059	Cer.Filter 10.7 MHz		4822 242 72076	2172	100nF 20%	50V	4822 122 33104
1060	Cer.Filter 10.7 MHz		4822 242 72076	2178	2200µF	10V	4822 124 41452
1061	Crystal 4 MHz		4822 242 71881	2180	2200µF	10V	4822 124 41452
1062	Crystal 4 MHz		4822 242 71882	2186	100nF 20%	50V	4822 122 33104
1064	Cer.Filter 10.7 MHz		4822 242 71883	2187	100nF 20%	50V	4822 122 33104
1065	Cer.Filter 10.7 MHz		4822 242 71883	2192	33 pF	50V	4822 122 33215
1068	Potm.Volume 2X50kΩ		4822 101 40145	2193	33 pF	50V	4822 122 33215
1166	Fuse 2.5A(T)		4822 253 30026	2196	2200µF	16V	4822 124 22412
1250/1251	Potm.Tone 2X100kΩ		4822 102 30462	2201	100pF 20%	50V	4822 122 33104
1254	Potm.Balance 100kΩ		4822 100 20663	2204	2.2µF	40V	4822 124 20706
	Lamp 14V-40mA		4822 134 40867	2206	4.7nF	50V	4822 122 33217
	Lamp 14V orange		4822 134 40921	2208	4.7nF	50V	4822 122 33217
-II-				-III-			
2050	100nF	20%	50V 4822 122 33104	3050	1k		4822 111 91516
2051	47 nF		4822 122 33211	3051	330Ω		4822 111 91501
2055	100nF	20%	50V 4822 122 33104	3052	10E		4822 111 91519
2056	10 nF		4822 122 31728	3053	10k Trimpotmeter		4822 100 20166
2057	47 nF		4822 122 33211	3054	2k7		4822 111 91525
2061	2.2µF		40V 4822 124 20706	3055	10k Trimpotmeter		4822 100 20166
2062	150pF		4822 122 33181	3056	4k7		4822 111 91532
2063	270pF		4822 122 33216	3057	750E		4822 111 91505
2064	220nF	20%	50V 4822 122 32916	3060	10E		4822 111 91519
2068	220nF	20%	50V 4822 122 32916	3061	3k3		4822 111 91526
2070	390pF	20%	50V 4822 122 33172	3064	39k		4822 111 91528
2074	220nF	20%	50V 4822 122 32916	3065	2k2		4822 111 91522
2076	220nF	20%	50V 4822 122 32916	3067	620k		4822 111 91503
2083	27 pF		4822 122 33214	3068	10E		4822 111 91519
2088	10 pF		4822 122 33212	3069	3k9		4822 111 91527
2089	33 pF	20%	50V 4822 122 33215	3070	8k2		4822 111 91507
2090	270pF	20%	50V 4822 122 33216	3072	22k		4822 111 91523
2091	270pF	20%	50V 4822 122 33216	3073	15k		4822 111 91498
2092	10 nF	20%	50V 4822 122 33177	3074	1k		4822 111 91516
2097	220nF	20%	50V 4822 122 32916	3075	10k		4822 111 91517
2099	150pF		50V 4822 122 33222	3076	2k7		4822 111 91525
2106	100nF	20%	50V 4822 122 33104	3077	330E		4822 111 91501
2109	22 pF		50V 4822 122 33213	3079	39k		4822 111 91528
2110	100nF	20%	50V 4822 122 33104	3080	39k		4822 111 91528
2114	4.7nF		50V 4822 122 33217	3082	91E		4822 111 91508
2115	3.3nF		50V 4822 122 33219	3083	2k2		4822 111 91522
2118	2200µF		6.3V 4822 124 41453	3084	39k		4822 111 91528
2120	10 pF		50V 4822 122 33212	3086	560E		4822 111 91533
2121	10 pF		50V 4822 122 33212	3087	470E		4822 111 91531
2122	820pF		50V 4822 122 33218	3090	4k7		4822 111 91532
2123	820pF		50V 4822 122 33218	3091	220k		4822 111 91524
2125	820pF		50V 4822 122 33218	3095	1k		4822 111 91516
2126	820pF		50V 4822 122 33218	3096	1k		4822 111 91516
2132	2.7nF		50V 4822 122 33176	3099	22k		4822 111 91523
2133	2.7nF		50V 4822 122 33176	3100	220k		4822 111 91524
2134	220nF	20%	50V 4822 122 32916	3104	18k		4822 111 91521
2135	220nF	20%	50V 4822 122 32916	3105	18k		4822 111 91521
2136	100nF	20%	50V 4822 122 33104	3106	1k		4822 111 91516
2140	220µF		10V 4822 124 22409	3107	39k		4822 111 91528
2141	5.6nF		50V 4822 122 33221	3108	10k		4822 111 91517
2142	5.6nF		50V 4822 122 33221	3110	470E		4822 111 91531
2150	220nF	20%	50V 4822 122 32916	3111	470E		4822 111 91531
2151	220nF	20%	50V 4822 122 32916	3112	390k		4822 111 91529
2156	1.8nF		50V 4822 122 33144	3113	390k		4822 111 91529
2157	1.8nF		50V 4822 122 33144	3116	1M		4822 111 91509
2158	100nF		50V 4822 122 33209				
2162	820pF		50V 4822 122 33218				
2164	820pF		50V 4822 122 33218				

					
3117	1M	4822 111 91509	5050		4822 156 11081
3118	56k	4822 111 91535	5052		4822 157 50975
3119	56k	4822 111 91535	5054		4822 152 20677
3120	56k	4822 111 91535	5055		4822 152 20677
3121	56k	4822 111 91535	5056		4822 152 20677
3124	2M2	4822 111 91511	5057		4822 152 20679
3125	2M2	4822 111 91511	5059		4822 157 50975
3126	39k	4822 111 91528	5060		4822 152 20682
3130	390k	4822 111 91502	5061		4822 152 20683
3140	2K7	4822 111 91525	5062		4822 152 20678
3141	2k7	4822 111 91525	5064		4822 157 50975
3142	10k	4822 111 91517	5066		4822 152 20681
3143	10k	4822 111 91517			
3146	15k	4822 111 91498	BAX14 BAX18 BBY40 BZX79/B5V1 BZX79/B5V6 BZX79/C4V7 1N4002 1N4148 4822 130 34193 4822 130 34121 5322 130 80119 4822 130 34233 4822 130 34173 4822 130 34174 5322 130 30684 4822 130 30621		
3147	15k	4822 111 91498			
3148	100k	4822 111 91518			
3149	100k	4822 111 91518			
3150	3k3	4822 111 91526			
3151	3k3	4822 111 91526			
3152	100k	4822 111 91518			
3153	100k	4822 111 91518	BC847B Chip Transistor 4822 130 60511		
3158	5k6	4822 111 91534			
3159	5k6	4822 111 91534			
3160	5k6	4822 111 91534	6050 6051 6052 6053 6055 6057 6060 6063 6064 TEA6100N2 TSA6057 TEA6200 X2402I TA7784P TMP47C421AF TDA1518Q L4918 L4904 4822 209 72251 4822 209 72248 4822 209 72247 4822 209 72802 4822 209 71871 4822 209 72254 4822 209 72249 4822 209 72253 4822 209 72252		
3161	5k6	4822 111 91534			
3165	100k	4822 111 91518			
3166	100k	4822 111 91518			
3167	100k	4822 111 91518			
3168	100k	4822 111 91518			
3169	100k	4822 111 91518			
3170	75E	4822 111 91506			
3171	270E	4822 111 91499			
3172	270E	4822 111 91499			
3173	100k	4822 111 91518			
3174	100k	4822 111 91518			
3175	10k	4822 111 91517			
3176	10k	4822 111 91517			
3177	680E	4822 111 91504			
3178	4E7	4822 116 80464			
3179	4E7	4822 116 80464			
3180	4E7	4822 116 80464			
3204	22k	4822 111 91523			
4050	0E	4822 111 91536			
4051	0E	4822 111 91536			
4052	0E	4822 111 91536			